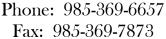


Texas Brine Company, LLC 1301 Highway 70 Palla Para LA 70241

Belle Rose, LA 70341





September 30, 2013

Commissioner James H. Welsh P.O. Box 94275 Baton Rouge, LA 70804

RE: In response to State of Louisiana Department of Natural Resources Office of Conservation's Second Amendment to Declaration of Emergency and Directive

Commissioner Welsh,

In response to the Second Amendment and Declaration of Emergency and Directive order issued by the Louisiana Department of Natural Resources (LDNR), Office of Conservation on September 25, 2012, Texas Brine Company, LLC (TPC) understands the seven items listed in the document.

In the above mentioned, TBC was specifically directed and ordered to perform certain tasks outlined in the above mentioned document. Below are the required responses, as directed.

- 1. TBC's counsel provided LDNR legal counsel with a response to Directives 1-3 on September 28, 2012.
- 2. TBC understands Directive 4, which is to provide all daily logs and field notes from all contractors conducting investigation into subsidence and natural gas bubbling. The Daily Action Summary and results for current information can be found in the Attachment section of this report.
- 3. TBC understands Directive 5, which directs TBC to immediately allow for split or share any sample taken on site related to Well 3A (Serial Number 974265), the cavern, other wells facilities or other site locations. The Daily Action Summary of today's collection can be found in Attachment section of this report.
- 4. TBC understands Directive 6, which directs TBC to immediately report the results (final and preliminary) of any tests, logs samples or data collection performed on Well 3A, the cavern, other wells, facilities or site locations that indicate a change in any previously known conditions related to the investigation of the subsidence or natural gas bubbling

- events, and continue to report any such results. The Daily Action Summary and the Results related to this Directive can be found in Attachment section of this report.
- 5. TBC understands the Directive 7, which states that TBC will provide a daily summary of all tests, or logs performed or samples taken from Well 3A and the cavern as well as any results of those tests or logs, including preliminary as of September 25, 2012 and going forward. The Daily Summary and Results related to this Directive can be found in Attachment section of this report.

Please note that the drilling rig used for the Observation Well 3A has been removed and the site is being rigged down and returned to pre-drilling condition. As such, daily drilling reports for this well have ceased. Plans are being made for longer term potential gas venting/flaring requirements and possible hydrocarbon material recover from Well 3A.

In addition, previous daily summary reports issued to LDNR have included significant duplicate information as there is a fair amount of overlap in the information requested in each of the Directives included in the September 25, 2012 order. All requested information associated with the Directives issued in the September 25, 2012 order are included in the Attachment section of this report.

TBC believes that the submittal of this report satisfies the requirements of the Declaration of Emergency and Directive issued on September 25, 2012. As directed this report is submitted by email to <u>conservationorder@la.gov</u>, ref. "Emergency Declaration-Texas Brine Company LLC-9/25/2012.

Bruce E. Martin

Vice President, Operations

Bana EMart

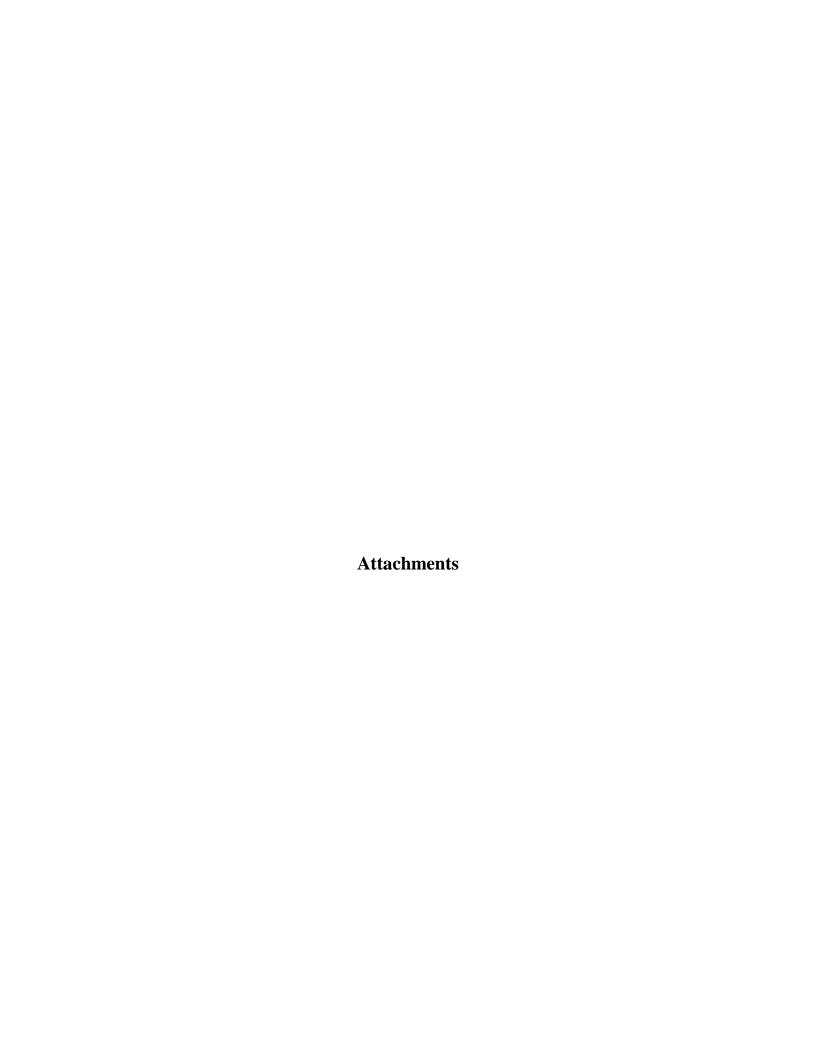
Texas Brine Company, LLC



				TBC Oxy Grand	Bayou Data Mana	gement-Environme	ental			
Contractor	Responsibilities	Co	lected By	Date Co	llected	Delivered to Lab	Results from Lab	Laboratory	Method	Date to Agencies
Sage	Stationary Air Monitoring	Britt Barnett 17:00; Eric Rucin Barnett (Code Re Rucinski - 07:45	nessy - 08:00 - 09:10, (Code Red) - 07:00 - ski - 07:30 - 08:45, Britt 40) - 07:00 - 11:00; Eric - 08:45, Britt Barnett) - 07:00 - 11:00	9/27 - 9/2	29/2013	NA	NA	NA	AreaRAE Monitors	9/28- 9/30/2013
-	Residential Air Monitoring	bimonthly resid Therefore, Sage	requested to suspend lential air monitoring. will discontinue these ctivities.	N#	1	NA	NA	NA	NA	NA
l f	Gas Seep Sampling	No wo	rk performed	9/27 - 9/2	29/2013	NA	NA	NA	NA	NA
	Well Gas Sampling	No wo	rk performed	9/27 - 9/2	29/2013	NA	NA	NA	NA	NA
1 [Under Slab Gas Sampling		rk performed	9/27 - 9/2		NA	NA	NA	NA	NA
	Indoor Air Monitoring	No wo	rk performed	9/27 - 9/2	29/2013	NA	NA	NA	NA	NA
Respec	Inclinometers/Tilt Meters/Transducers	9/27/2213	No work Conducted	NA	NA	NA	NA	NA	NA	NA
-	InSAR Reflector Installations	9/27/2213	No work Conducted	NA	NA	NA	NA	NA	NA	NA
	Subsidence Survey-Fenstermaker	9/27/2213	No work Conducted	NA	NA	NA	NA	NA	NA	NA
	Shallow Geophone Installation	9/27/2213	No work Conducted	NA	NA	NA	NA	NA	NA	NA
-	Deep Geophone Installation	9/27/2213	No work Conducted	NA	NA	NA	NA	NA	NA	NA
-	Amendment #3, Directive #2	9/27/2213	No work Conducted	NA	NA	NA	NA	NA	NA	NA
-	Expansion of geoprobe gas sampling locations DPVE Pilot Test	9/27/2213	No work Conducted Equipment inspection by Mark Garon-MK Environmental	NA N. Marnach;	NA PS	NA NA	NA NA	NA NA	NA NA	NA NA
	MIHPT	9/27/2213	MiHPT-055 (ORW-06)	J. Knight	NA	NA	NA	NA	NA	NA
Miller	Weekly Stability Survey		Performed	9/27 - 9/2		NA NA	NA NA	NA	NA NA	NA NA
	Misc. Survey Work Sinkhole Hydro/Perimeter Survey		Sauce/Matt Fore Performed	9/27 - 9/2 9/27 - 9/2		NA NA	NA NA	NA NA	NA NA	NA NA
Pisani	Surface Water	NO	NA	9/27 - 9/2		NA NA	NA NA	NA NA	NA NA	NA NA
1130111	Industrial Well Water	1	NA NA	9/27 - 9/2		NA NA	NA NA	NA NA	NA NA	NA NA
	MRAA Well Water	1	NA NA	9/27 - 9/2		NA NA	NA NA	NA NA	NA NA	NA NA
	GP/ORW Water		NA	9/27 - 9/2		NA	NA	NA	NA	NA
	Cavern Water		NA	9/27 - 9/2		NA	NA	NA	NA	NA
	Discharge/Outfall Water		NA	9/27 - 9/2	29/2013	NA	NA	NA	NA	NA
	Geoprobe Wells		NA	9/27 - 9/2	29/2013	NA	NA	NA	NA	NA
					Grand Bayou W	ell 3A				
	Daily Operations at 3A					Su	mmarv of Todav's	events		
	9/28 - 9/30/2013	7am 675.7		9/28/2	2013		Oxv 3A			
		7am 675.7		9/29/2	2013					
		7am 675.94		9/30/2						
		2,5154		9/30/	2013		Relief Well #1			

See ORW-01 Flare Spreadsheet

9/28 - 9/30/2013



Daily Action Summary

September 27, 2013

Stationary Air Monitoring

- Steven Shaughnessy onsite from 08:00 to 09:10. Changed out the monitors between 08:25 and 08:50. Collected data from the monitoring database and forwarded to Eric Rucinski in the Baton Rouge office for processing.
- Britt Barnett of Code Red (monitor sub-contractor) onsite from 07:00 to 17:00. Assisted in battery change outs and maintenance of the monitoring equipment.

<u>NOTE</u>: RTU-9, located at TR-1, began intermittently recording elevated O_2 readings at approximately 05:28 on 09/27/2013. RTU-2 replaced RTU-9 at 08:25 on 09/27/2013, and normal readings resumed.

Residential Air Monitoring

• Sage has been requested to suspend bimonthly residential air monitoring. Therefore, Sage will discontinue these activities. The last event was conducted on March 26, 2013.

Gas Seep Sampling

Not Scheduled

Well Gas Sampling

• Not Scheduled

Under Slab Gas Sampling

Not Scheduled

Air Indoor Monitoring

Not Scheduled

		Observatio	n Relief	Well -7			Observ	ation Relief V	Well - 8			Observ	ation Relief	Vell -11			Sout	h of OG3A	1 -1			(Onsite Trailer	S	
		O	RW-7a					ORW-8a					ORW-11a					Pad #9					TR-1		
		Non-					Non-					Non-					Non-					Non-		 	1
		Methane					Methane					Methane					Methane					Methane		 	1
Date-Time *	CO (ppm)	VOC (ppm) H2	2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	VOC (ppm) I	I2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
09/27/2013 01:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9
09/27/2013 02:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9
09/27/2013 03:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9
09/27/2013 04:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9
09/27/2013 05:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	22.9
09/27/2013 06:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	22.7
09/27/2013 07:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	21.0
09/27/2013 08:00:00 AM	<1.0	<1.0	0.0	0.0	20.8	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.7	0.0	<1.0	0.0	0.0	20.8
09/27/2013 09:00:00 AM	<1.0	<1.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.4	0.0	0.0	0.0	0.0	20.9
09/27/2013 10:00:00 AM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.5	0.0	0.0	0.0	0.0	20.9
09/27/2013 11:00:00 AM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
09/27/2013 12:00:00 PM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.5	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.8	0.0	0.0	0.0	0.0	20.9
09/27/2013 01:00:00 PM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.6	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/27/2013 02:00:00 PM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.6	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/27/2013 03:00:00 PM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.5	0.0	0.0	<1.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/27/2013 04:00:00 PM	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/27/2013 05:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/27/2013 06:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.4	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/27/2013 07:00:00 PM	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.3	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/27/2013 08:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.3	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/27/2013 09:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/27/2013 10:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/27/2013 11:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.1	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 12:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9

Notes:

RTU-9, located at TR-1, began intermittently recording elevated O2 readings at approximately 05:28 AM on 09/27/2013. RTU-2 replaced RTU-9 at 08:25 AM on 09/27/2013, and normal readings resumed.

		Observa	ation Relief V	Well -7			Observa	ation Relief V	Well - 8			Observa	tion Relief V	Well -11			So	uth of OG3A	- 1			(Onsite Trailer	rs	
			ORW-7a					ORW-8a					ORW-11a					Pad #9					TR-1		
		Non-					Non-					Non-					Non-					Non-			1 '
		Methane					Methane					Methane					Methane					Methane			1 '
Date-Time *	CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	41 /	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
09/27/2013 05:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	22.9
09/27/2013 06:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	22.7
09/27/2013 07:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	21.0
09/27/2013 08:00:00 AM	<1.0	<1.0	0.0	0.0	20.8	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.7	0.0	<1.0	0.0	0.0	20.8
09/27/2013 09:00:00 AM	<1.0	<1.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.4	0.0	0.0	0.0	0.0	20.9
09/27/2013 10:00:00 AM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.5	0.0	0.0	0.0	0.0	20.9
09/27/2013 11:00:00 AM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.4	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
09/27/2013 12:00:00 PM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.5	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.8	0.0	0.0	0.0	0.0	20.9
09/27/2013 01:00:00 PM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.6	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/27/2013 02:00:00 PM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.6	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/27/2013 03:00:00 PM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.5	0.0	0.0	<1.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/27/2013 04:00:00 PM	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/27/2013 05:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/27/2013 06:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.4	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/27/2013 07:00:00 PM	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.3	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/27/2013 08:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.3	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/27/2013 09:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/27/2013 10:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/27/2013 11:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.1	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 12:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 01:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 02:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 03:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 04:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 05:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9

Notes:

RTU-9, located at TR-1, began intermittently recording elevated O2 readings at approximately 05:28 AM on 09/27/2013. RTU-2 replaced RTU-9 at 08:25 AM on 09/27/2013, and normal readings resumed.

Daily Action Summary

September 28, 2013

Stationary Air Monitoring

- Eric Rucinski onsite from 07:30 to 08:45. Changed out the monitors between 08:05 and 08:28. Collected data from the monitoring database and forwarded to Steven Shaughnessy in the Baton Rouge office for processing.
- Britt Barnett of Code Red (monitor sub-contractor) onsite from 07:00 to 11:00. Assisted in battery change outs and maintenance of the monitoring equipment.

Residential Air Monitoring

• Sage has been requested to suspend bimonthly residential air monitoring. Therefore, Sage will discontinue these activities. The last event was conducted on March 26, 2013.

Gas Seep Sampling

• Not Scheduled

Well Gas Sampling

• Not Scheduled

Under Slab Gas Sampling

• Not Scheduled

Air Indoor Monitoring

• Not Scheduled

		Observati	on Relief	Well -7			Observ	ation Relief V	Vell - 8			Observ	ation Relief V	Vell -11			Sou	th of OG3A	1 -1			(Onsite Trailer	S	
		(ORW-7a					ORW-8a					ORW-11a					Pad #9					TR-1		
		Non-					Non-					Non-					Non-					Non-			
		Methane					Methane					Methane					Methane					Methane			
Date-Time *	CO (ppm)	VOC (ppm) H	I2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)		SO2 (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
09/28/2013 01:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 02:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 03:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 04:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 05:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 06:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 07:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 08:00:00 AM	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.6	0.0	0.0	0.0	0.0	20.9
09/28/2013 09:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.7	0.0	0.0	0.0	0.0	20.9
09/28/2013 10:00:00 AM	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.7	0.0	<1.0	0.0	0.0	20.9
09/28/2013 11:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.7	0.0	0.0	0.0	0.0	20.9
09/28/2013 12:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.0	0.0	0.0	<1.0	0.0	21.8	0.0	0.0	0.0	0.0	20.9
09/28/2013 01:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.0	<1.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 02:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.0	<1.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 03:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 04:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	0.0	0.0	21.1	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 05:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.1	<1.0	<1.0	0.0	0.0	21.1	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 06:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 07:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 08:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 09:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 10:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 11:00:00 PM	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/29/2013 12:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9

Notes:

		Observ	ation Relief V	Well -7			Observ	ation Relief	Well - 8			Observat	tion Relief V	Vell -11			Sc	outh of OG3A	-1			(Onsite Trailer	S	
			ORW-7a					ORW-8a					ORW-11a					Pad #9					TR-1		
		Non-					Non-					Non-					Non-					Non-			
		Methane					Methane					Methane					Methane					Methane			
Date-Time *	CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
09/28/2013 05:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 06:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 07:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 08:00:00 AM	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.6	0.0	0.0	0.0	0.0	20.9
09/28/2013 09:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.7	0.0	0.0	0.0	0.0	20.9
09/28/2013 10:00:00 AM	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.7	0.0	<1.0	0.0	0.0	20.9
09/28/2013 11:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.7	0.0	0.0	0.0	0.0	20.9
09/28/2013 12:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.0	0.0	0.0	<1.0	0.0	21.8	0.0	0.0	0.0	0.0	20.9
09/28/2013 01:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.0	<1.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 02:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.0	<1.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 03:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 04:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	0.0	0.0	21.1	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 05:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.1	<1.0	<1.0	0.0	0.0	21.1	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 06:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 07:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 08:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 09:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 10:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/28/2013 11:00:00 PM	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/29/2013 12:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/29/2013 01:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/29/2013 02:00:00 AM	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/29/2013 03:00:00 AM	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/29/2013 04:00:00 AM	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.8	0.0	0.0	0.0	0.0	20.9
09/29/2013 05:00:00 AM	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.8	0.0	0.0	0.0	0.0	20.9

Notes:

Daily Action Summary

September 29, 2013

Stationary Air Monitoring

- Eric Rucinski onsite from 07:45 to 08:45. Changed out the monitors between 07:59 and 08:16. Collected data from the monitoring database and forwarded to Steven Shaughnessy in the Baton Rouge office for processing.
- Britt Barnett of Code Red (monitor sub-contractor) onsite from 07:00 to 11:00. Assisted in battery change outs and maintenance of the monitoring equipment.

Residential Air Monitoring

• Sage has been requested to suspend bimonthly residential air monitoring. Therefore, Sage will discontinue these activities. The last event was conducted on March 26, 2013.

Gas Seep Sampling

• Not Scheduled

Well Gas Sampling

• Not Scheduled

Under Slab Gas Sampling

• Not Scheduled

Air Indoor Monitoring

Not Scheduled

		Observati	ion Relief	Well -7			Observ	ation Relief V	Vell - 8			Observ	ation Relief V	Vell -11			Sou	th of OG3A	1 -1			(Onsite Trailer	S	
			ORW-7a					ORW-8a					ORW-11a					Pad #9					TR-1		
		Non-					Non-					Non-					Non-					Non-			ļ
		Methane					Methane					Methane					Methane					Methane			
Date-Time *	CO (ppm)	VOC (ppm) H	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)		SO2 (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
09/29/2013 01:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/29/2013 02:00:00 AM	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/29/2013 03:00:00 AM	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.9	0.0	0.0	0.0	0.0	20.9
09/29/2013 04:00:00 AM	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.8	0.0	0.0	0.0	0.0	20.9
09/29/2013 05:00:00 AM	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.8	0.0	0.0	0.0	0.0	20.9
09/29/2013 06:00:00 AM	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.8	0.0	0.0	0.0	0.0	20.9
09/29/2013 07:00:00 AM	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.8	0.0	0.0	0.0	0.0	20.9
09/29/2013 08:00:00 AM	<1.0	<1.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.8	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
09/29/2013 09:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.8	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.8	<1.0	<1.0	0.0	0.0	20.9
09/29/2013 10:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
09/29/2013 11:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
09/29/2013 12:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
09/29/2013 01:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
09/29/2013 02:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
09/29/2013 03:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
09/29/2013 04:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
09/29/2013 05:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
09/29/2013 06:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
09/29/2013 07:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
09/29/2013 08:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
09/29/2013 09:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
09/29/2013 10:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
09/29/2013 11:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.7	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.0	<1.0	<1.0	0.0	0.0	20.9
09/30/2013 12:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9

Notes:

		Observ	ation Relief V	Well -7			Observa	ation Relief V	Well - 8			Observati	ion Relief V	Vell -11			Sc	uth of OG3A	- 1			(Onsite Trailer	S	
			ORW-7a					ORW-8a				(ORW-11a					Pad #9					TR-1		
		Non-					Non-					Non-					Non-					Non-			
		Methane					Methane					Methane					Methane					Methane			, , , , , , , , , , , , , , , , , , ,
Date-Time *	CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	VOC (ppm) I	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
09/29/2013 05:00:00 AM	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.8	0.0	0.0	0.0	0.0	20.9
09/29/2013 06:00:00 AM	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.8	0.0	0.0	0.0	0.0	20.9
09/29/2013 07:00:00 AM	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.8	0.0	0.0	0.0	0.0	20.9
09/29/2013 08:00:00 AM	<1.0	<1.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.8	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
09/29/2013 09:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.8	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.8	<1.0	<1.0	0.0	0.0	20.9
09/29/2013 10:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
09/29/2013 11:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
09/29/2013 12:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
09/29/2013 01:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
09/29/2013 02:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
09/29/2013 03:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
09/29/2013 04:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
09/29/2013 05:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
09/29/2013 06:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
09/29/2013 07:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
09/29/2013 08:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
09/29/2013 09:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
09/29/2013 10:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
09/29/2013 11:00:00 PM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.7	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.0	<1.0	<1.0	0.0	0.0	20.9
09/30/2013 12:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
09/30/2013 01:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
09/30/2013 02:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
09/30/2013 03:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
09/30/2013 04:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9
09/30/2013 05:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.5	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.9

Notes:



September 28, 2013

Mr. Bruce Martin Vice President of Operations Texas Brine Company, LLC 4800 San Felipe Houston, TX 77056

Dear Mr. Martin:

RE: In-Place Inclinometer, Tiltmeter, and Water-Level Monitoring System, Napoleonville Dome Report: August 23, 2013 Through September 23, 2013

RESPEC is pleased to submit this weekly report on the in-place inclinometer (IPI), tiltmeter, and water-level monitoring system installed around the sinkhole located near the western flank of the Napoleonville Dome, Assumption Parish, Louisiana. Water-level data in this report and the attached Excel file are submitted in response to Directive #5 contained in the October 11, 2012, Third Amendment to Declaration of Emergency and Directive from the Department of Natural Resources Office of Conservation. IPI and tiltmeter data are also attached as Excel files. Note that the charts in this report were constructed using 1-hour data values; however the attached data files include all 1-minute data, and 10-second data at 88 beginning on

Tilt monitoring locations are illustrated in Figure 1. Graphs illustrating relative tilt data are provided in Figures 2 and 3, showing tilt in the X-direction and Y-direction, respectively. A condition reflecting no changes in ground movement plots as a horizontal line on these graphs. Relative tilt data was calculated by subtracting the initial reading for the time period shown from all values shown for each sensor, so that all variables in each plot start at zero and show change in tilt relative to the initial value. Note that the instruments installed are very sensitive; they can measure ground tilt to less than 1/1000 of a degree.

The Pad 3 tiltmeter (88) was removed from the Pad 3 pump-storage tanks on August 30th at 11:00 a.m., and reinstalled on September 1st at 11:00 a.m. on the off-pad structure located 12 feet south of Pad 3. TBC had indicated that the pump-storage structure may be moved due to concerns of sloughing at Pad 3. Raw data values will show a large difference in tilt at 88 when the sensor came back online; this is due to the repositioning of the sensor. The data used to construct the plots in Figures 2 and 3 for Site 88 has been zeroed to remove this large change in values.

Figures 2 and 3 indicate that Site 88 (Pad 3) tiltmeter tilted slowly towards the north after it was reinstalled off the southern edge of the pad. Tilt values since September 16th at Pad 3 indicate that this trend has not continued. Site 33 (IPI-3) tilted slightly during a maintenance visit on August 27. Site 01 (IPI-2), which is located in the pipeline corridor to the north of the sinkhole, began tilting to the east on September 6th; tilt values stabilized on or around September 13th. Total tilt at Site 01 was about 0.1 degrees toward the east.

Water level monitoring locations are shown in Figure 4. Because the water level monitors are hydraulically connected in each berm subsection, water levels should be the same within each subsection at all times. Disproportionately increasing water levels would indicate downward ground movement at that sensor. At this time we are still verifying the assumption of hydraulic connection in each berm subsection; at low water levels, low berms existing along old pipelines to the west may further separate the sections of swamp. Water level datum are individual staff gages located at each transducer. Staff gages and transducers are mounted on structures driven into the swamp substrate, and thus both will experience the same localized subsidence that the site experiences. Values should not be interpreted as depths with respect to sea level; instead, changes in water level at one transducer relative to another reflects relative subsidence at that transducer with respect to the other.

Figure 5 shows relative water level temporal trends calculated from data recorded inside the sinkhole berm. Water level sensors in the main sinkhole area are 99 (Pad 3), 89 (Rig Access Road), 01 (IPI-2), and 39. Water levels sensors in the onsite ponds (immediately west of the TBC brine facility) are 40, 44, 48, and 50. These sensors are all hydraulically connected during high water; however during low water 99 becomes subaerially exposed, and 40, 44, 48, and 50 may not be connected to the inner-sinkhole area. Data from sensor 99 (Pad 3) will be erroneous during low water; the sensor can become cut-off from the water in the sinkhole.

A comparison of values on August 23 to values on September 24 shows that sensors at 99, 40, 44, 48, 50 deviated from each other +/- 0.03 feet. This indicates no or minimal relative subsidence among these sensors. Data from 99 (Pad 3) is anomalous – water levels at 99 prior to September 21st were generally falling much faster than those at the other sites, this may be attributed to the small pond around the sensor being hydraulically separated from sinkhole water. Total rainfall on September 21st was 2.6 inches between midnight and noon, bringing the water level in and around the sinkhole up 0.4 to 0.5 feet. Water level data at 99 after the September 21st rise in water levels is well correlated with 40, 44, 48, and 50, indicating that the sensor at 99 is again submerged. Water level data from Site 39 indicates that levels are dropping twice as fast in that location compared to other sites, indicating ground moving upward.

Water level data at 01 (IPI-2) has high scatter, however appears to trend similar to the sites described above through September 21st, indicated little or no subsidence at the site. Water level data at 89 (Rig Access Road) through September 21st shows water levels falling disproportionately from those described above; this indicates upward ground movement is occurring at the site. We will investigate 89 while onsite next week.

On September 21^{st} around noon, both 01 and 89 appear to begin subsiding. Subsidence rates are 0.22 feet/day at 01 and 0.13 feet/day at 89.

Figure 6 shows relative water level temporal trends calculated from data recorded in the berm subsection to the north-east of the sinkhole. Water level sensors in this area are 21, 22, 52, 53, and 55. Water level sensor data in the northeast section generally appears to be well correlated. The difference in water levels between August 23 and September 24 is most pronounced at sensor 55 located near the eastern berm facility-entrance road, which appears to be subsiding at a rate of 0.03 feet per month. This may be due to additional berm fill material

being added off the west side of the TBC facility access road. Water level sensor data from 21, 22, 52, and 53, which are located between the sinkhole and Highway 70, do not indicate differential subsidence at this time.

Figure 7 shows relative water level temporal trends calculated from data recorded to the west of the western berm. Water level sensors in this area are 29, 31, 32, 34, 35, 36, 37, 54, 59, and 60. Sensor 59 is hydraulically separated by berms from all other sensors in this section, and data from 59 does not correlate with the other sensors in this section. Sensors north of the Maurice Road berm (35 and 60) may become hydraulically separated from those to the south during low water.

Analysis of water level data in the west section does not indicate a substantial relative subsidence trend at this time between the sinkhole and Bayou Corne. The spread in relative water levels between sites (deviation from the assumption of a perfectly-flat surface) from August 23rd to September 24th is less than +/- 0.045 feet, or +/- 0.5 inches. These rates appear to be distributed randomly and are not correlated with distance from the sinkhole or area of swamp.

Sincerely

Eric L. Krantz Engineer

ELK:llf

Enclosure

cc: Mr. Mark Cartwright, Texas Brine Company, LLC Mr. Scott Borne, Texas Brine Company, LLC Project Central File 2153 — Category C

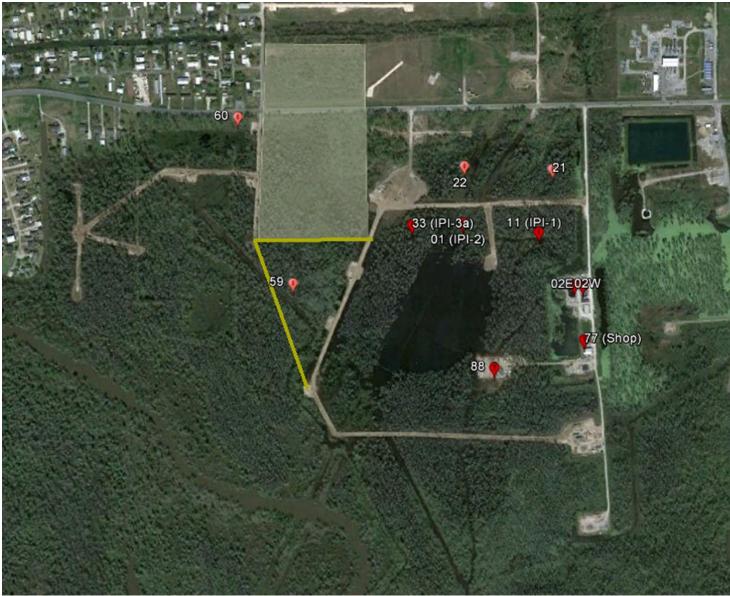


Figure 1. Tilt Monitoring Locations.

X-Axis Tilt, Relative, Degrees

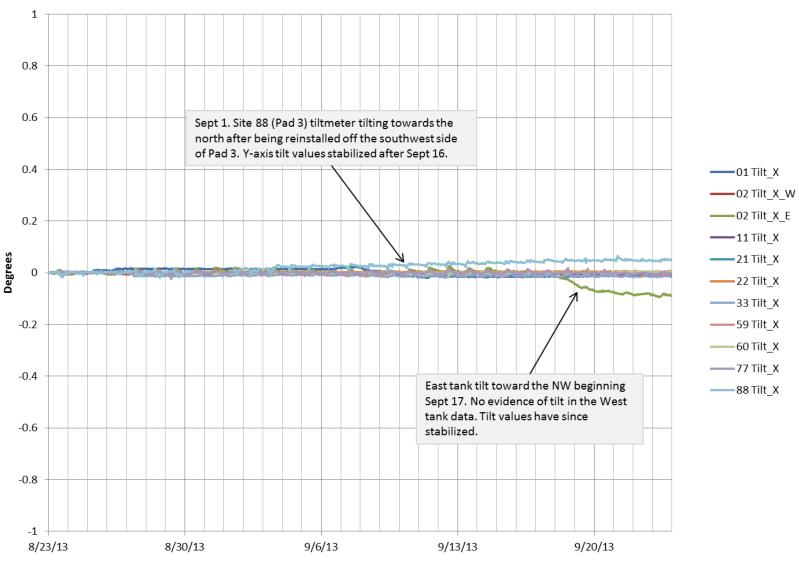


Figure 2. Tiltmeter X-Direction Temporal Trends.

Y-Axis Tilt, Relative, Degrees

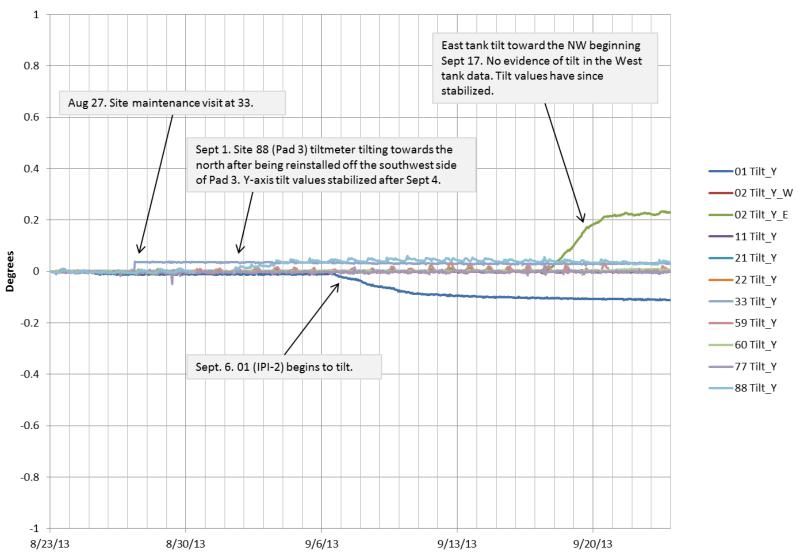


Figure 3. Tiltmeter Y-Direction Temporal Trends.

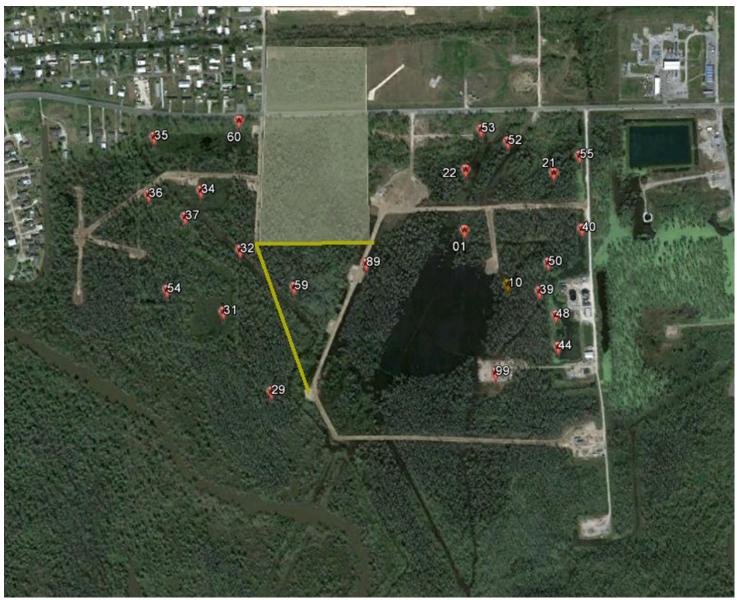


Figure 4. Water Level Monitoring Locations.

Relative Water Level, Inside Berm

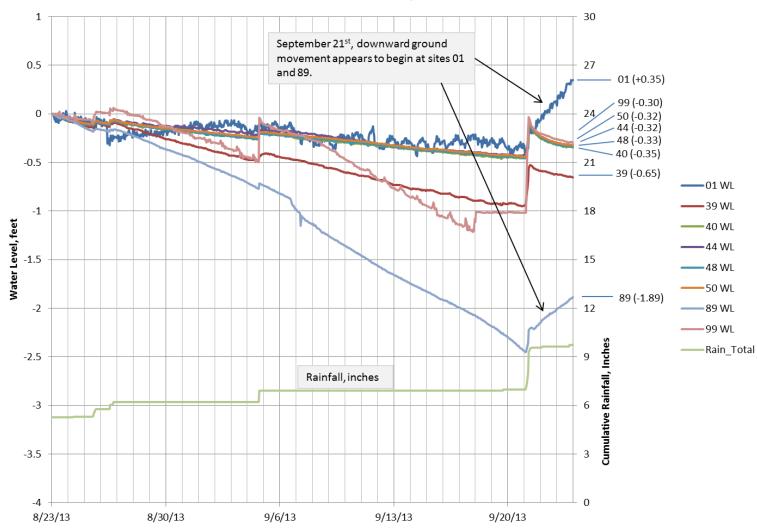


Figure 5. Water level sensor relative temporal trends for sensors located inside the sinkhole berm. Cumulative rainfall is shown on the right Y-axis. Water level values on September 24th are given on the right side of the plot, and are relative to the initial August 23rd value in the plot.

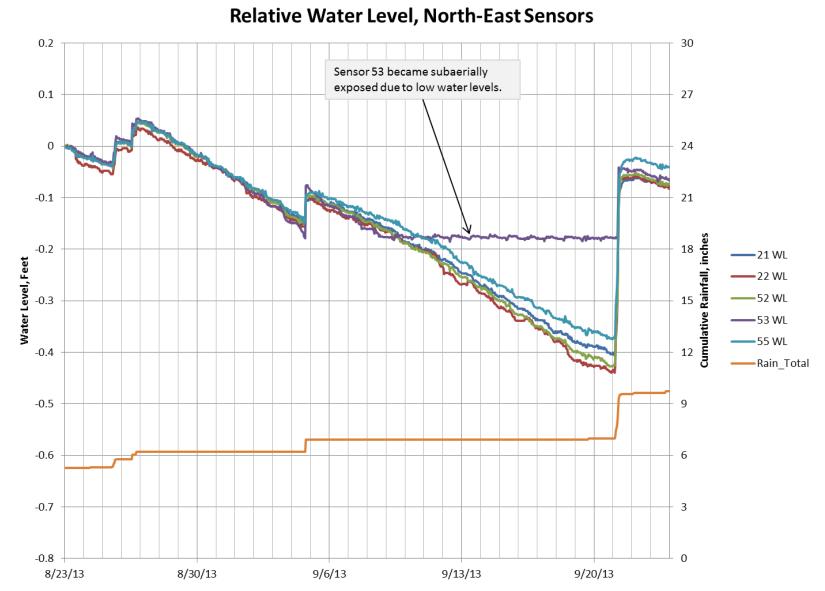


Figure 6. Water-Level Temporal Trends Showing North-East Sensors and Cumulative Rainfall.

Relative Water Level, Western Sensors

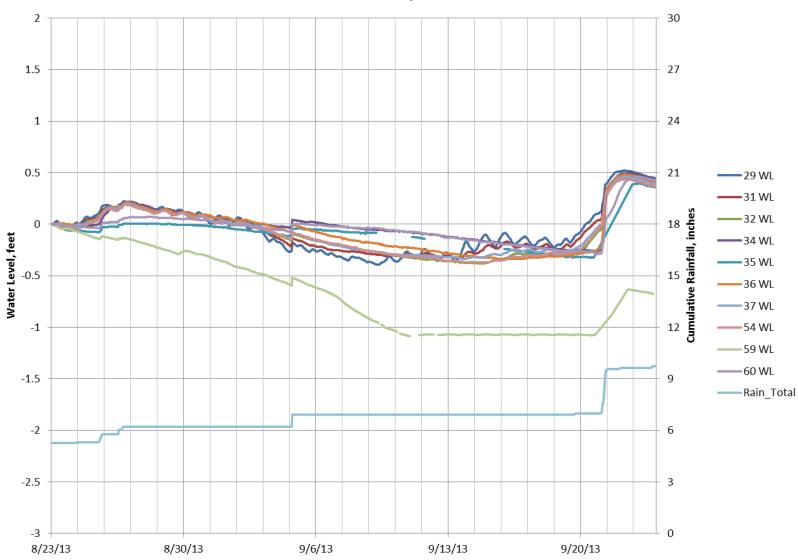


Figure 7. Water-Level Temporal Trends Showing Western Sensors and Cumulative Rainfall.

ME&A Daily Action Summary

September 27, 2013

Subsidence Survey:

No Work Done

Sinkhole Perimeter/Hydrographic Survey:

No Work Done

Support Sinkhole Cleanup

No Work Done

Misc. Survey Work

- Arrive @ 11:00 am
- Settlement plate survey at DPVE 47 location
- Departed @ 12:00 pm

ME&A Daily Action Summary

September 28, 2013

Subsidence Survey:

No Work Done

Sinkhole Perimeter/Hydrographic Survey:

No Work Done

Support Sinkhole Cleanup

No Work Done

Misc. Survey Work

- Arrive @ 8:00 am
- Settlement plate survey at DPVE 47 location
- Departed @ 9:30 am

ME&A Daily Action Summary

September 29, 2013

Subsidence Survey:

No Work Done

Sinkhole Perimeter/Hydrographic Survey:

No Work Done

Support Sinkhole Cleanup

No Work Done

Misc. Survey Work

- Arrive @ 8:00 am
- Settlement plate survey at DPVE 47 location and set controls for monitoring of Pad 3 for removal of WW #3
- Departed @ 10:00 am

RESPEC Consulting & Services

Texas Brine, L.L.C. Assumption Parish, Louisiana Daily Field Report

Report By: $\underline{\text{John Knight}}$ Date: $\underline{9/24/13}$ Company: $\underline{\text{RESPEC}}$ Job #: $\underline{02241}$

Personnel	Company	Job Title
Peter Smith, CPG	RESPEC	Staff Geologist
Nick Marnach	RESPEC	Staff Engineer
John Knight	RESPEC	Staff Geologist

Time on Site: Start Time: 7:30 End Time: 18:00

DAILY ACTIVITY

MiHPT-014, MiHPT-029, and MiHPT-92 completed.

DPVE: Due to concerns of subsidence during DPVE testing, future wells for DPVE testing have been postponed until subsidence monitoring during DPVE-47 pilot test has been assessed. Completed installation of water level transducers at DPVE-47 and assembly of power cables.

PROPOSED SCHEDULE

MiHPT: MiHPT-005 on Pad #10

DPVE Pilot Test: Continue with set up at DPVE-47 for deep pilot test.

Initials: JPK

RESPEC Consulting & Services

Texas Brine, L.L.C.

Assumption Parish, Louisiana

Daily Field Report

Report By: $\underline{\text{John Knight}}$ Date: $\underline{9/27/13}$ Company: $\underline{\text{RESPEC}}$ Job #: $\underline{02241}$

Personnel	Company	Job Title
Nick Marnach	RESPEC	Staff Engineer
John Knight	RESPEC	Staff Geologist

Time on Site: Start Time: 7:30 End Time: 18:00

DAILY ACTIVITY

MiHPT: MiHPT-055 is complete and Walker-Hill Environmental will resume operations on Wednesday October 2nd.

DPVE Pilot Test: Mark Garon-MK Environmental conducted on-site inspection of DPVE equipment and on-going installation of instruments and pump for planned start-up Monday September 30st.

Instrumentation: Site 59-completed installation of supplemental photovoltaic, Site 11-completed upgrade of data-logger, Site 39-adjusted water lever transducer and upgraded software.

PROPOSED SCHEDULE

DPVE Pilot Test: Continue with set up at DPVE-47 for deep pilot test with Mark Garon.

Instrumentation: Continue with upgrades and calibration to stations within sinkhole perimeter.

Initials: JPK